

# U.S. Coral Reef Monitoring Project Survey

## **Part 1. Project Summary**

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**Survey administered by:** ASCH

**Project ID:**

**Date Administered (dd-mo-yy):** 04-01-00

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**Project title:** Coral Reef Fish Monitoring in Virgin Islands National Park

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### **Principal investigators**

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### **Keywords (provide several keywords that describe project data):**

CORAL REEF FISHES

COMMUNITY STRUCTURE

COMMUNITY, POPULATION CHANGE

MONITORING

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### **Project Summary:**

This project entails monitoring of coral reef fishes on (4) selected reefs around St. John, US Virgin Islands and the development of a reef fish monitoring protocol.

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### **Spatial Coverage of Database**

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**Spatial Coverage (briefly describe geographic extent of project):**

The geographic extent of this project covers four fringing reefs around St. John. Areal coverage on each reef is approximately 8,000-15,000 square meters.

**Geographic Extent (Bounding rectangle in decimal degrees);**

North \_\_\_\_\_ West \_\_\_\_\_ South \_\_\_\_\_ East \_\_\_\_\_

**Are data aggregated into geographic units:** ☒ yes ☐ no

**Are data available in disaggregated form:** ☒ yes ☐ no

**How was spatial accuracy determined:**

☒ NOAA Nautical Chart ☐ USGS Quad ☐ Loran ☐ County Road Map  
☐ Survey ☒ GPS ☐ Other:

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**Temporal Characteristics of Database**

**Temporal characteristics (brief narrative):**

For nine consecutive years, data has been taken during summer months (1991-1999). Additional monthly samples were collected at two reef for 2+ years.

**Period of Record:**

Begin (d/mo/yr): 1991 End (d/mo/yr): 1999

**Sampling is:** ☒ Ongoing ☐ Planned ☐ Historic

**Frequency of Sampling:**

☐ Hourly ☐ Daily ☐ Weekly ☐ Monthly ☒ Annually ☐ Other:

**Sampling Interval:**

☒ Fixed ☐ Intermittent

**How is sampling recorded?**

☐ Automated ☒ Non-automated

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**Data Parameters:**

**Specific Constituents/Parameters Sampled (include units):**

FISH SPECIES

ESTIMATED LENGTH OF FISH

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**Methodology:**

**Provide a short description about how monitoring data are gathered/acquired:**

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The method used is the standard stationary point count developed by Bohnsack and Bannerot. This is conducted using SCUBA at randomly selected points on the reef. A sample size study is underway.

Using SCUBA, the diver locates himself at the center of a 15 m cylinder. All species that are observable are listed for 5 minutes. Then, all species are enumerated and estimated lengths are recorded along with physical characteristics of the sampling site.

**On what basis were sites selected?**

High biodiversity, high physical structure, similar physical characteristics.

**How are samples processed, stored, and archived in the field?**

Visual samples are recorded on waterproof paper.

**How are samples processed, stored, and archived in the laboratory?**

Only visual samples are collected and nothing is brought to the laboratory.

**What methods were used for sample analysis and quality assurance?**

☒ **Data quality analysis**

Sample size analysis is underway.

☐ **Chemical analysis**

**Describe any assumptions in assembling/acquiring monitoring data:**

The primary assumption is that samples are representative. Also, this method does not sample cryptic and rare species well.

**Describe the primary limitations with monitoring data:**

SCUBA diving limits the number of samples at given depths which can be practically conducted per unit time.

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**Database Characteristics:**

**Format:**

☒ Digital

☐ Map

☐ Hardcopy (reports, data sheets, tables)

☐ Other\_\_\_\_\_

**Status (check one):**

☐ Database Available/Being Distributed

☒ Portions of Database Available

☐ Data Not Available

☐ Other\_\_\_\_\_

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**Predominant Data Type:**☒ Numeric☐ Qualitative**How is data stored (hardware & software):**

Microsoft Excel on PC

**Data Structure:**☒ Discrete Points (sampling site) ☐ Line/transect (e.g., shoreline, beach)☐ Polygon (watershed)**Data Completeness (check one):**☒ Data clean ☐ Data need minor work ☐ Data need major work ☐ Other:**Data Maintenance (check one):**☒ No maintenance ☐ Intermittent maintenance ☐ Periodic maintenance (fixed intervals)☐ Continuous maintenance ☐ Other: The data is not yet available.**Are the following elements in this database available for each sampling location (check all that apply)?**☒ Station Location (lat/long coordinates of site or areal unit)☐ Frequency of Sampling (by station location)☐ Constituents/Parameters Sampled (by station location)☐ Period of Record

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**Use and Users:****How is data used?**☒ Research: the development of monitoring protocols☒ Monitoring: data on reef fish resources☒ Planning: the determination of monitoring approaches and resource assessment☒ Management: the establishment and refinement reef fish regulations☐ Regulatory**Users (identify specific institutions):**☒ Federal Government: NMFS, NPS, BRD, CFMC☒ State Government: Florida (comparative data)☒ Local Government: Government of the US Virgin Islands

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[x] Regional Entities: CFMC

[x] Academic: comparative data

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**Data Availability:**

**On-line (describe how to access, i.e., bbs, Telnet, world wide web):**

No

**Off-line: (describe how to access):**

NPS archive in I&M program

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**Are costs associated with requests?**      ☒ yes      ☐ no

**If yes, please explain:**

Costs will cover staff time, archive maintenance, and the prices of hardware and software.

**Access constraints (describe briefly any constraints for accessing data set):**

Staff availability and time

**Use constraints (describe briefly any constraints for using data set):**

**Data contact (list only if different from PI):**

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